

A PSYLLID PEST OF ACACIA NEW TO BRITAIN

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In September 1990 a recently acquired single plant of *Acacia rivalis* Black, J. in a glasshouse at the Royal Horticultural Society's Garden at Wisley, Surrey, was found to be infested with eggs, nymphs and adults of a psyllid. Samples were sent to the Natural History Museum, London, and were identified as *Acizzia uncatoides* (Ferris & Klyver) (Hemiptera: Psyllidae). This originates from New Zealand and Australia but has spread to the USA (especially California), the Hawaiian Islands, France, Spain, Italy and Israel. In California it has been recorded on a wide range of wattles and mimosas, *Acacia* spp. and silk trees, *Albizia* spp. (Munro, 1965), some of which are grown in Britain. The plant at Wisley had come from a nursery at Loddon, Norfolk, where it had been raised from seed. The grower suspected that the psyllid may have been introduced with some plants of *Acacia retinoides* and *Albizia julibrissin* he had imported from the south of France. Infested plants at the nursery were destroyed and the plant at Wisley was treated with insecticide to eradicate the pest. There is a potential for further importations as acacias and albizias are becoming popular as conservatory plants.

The acacia sucker is a sap-feeding insect that forms dense colonies on the leaves and stems at the shoot tips. All stages in the life cycle can be found together. The elongate eggs are about 0.25 mm long and are whitish-yellow with one end more pointed than the other. As with all psyllids, the nymphal stages are distinctly dorso-ventrally flattened and have obvious wing pads. Young nymphs are creamy yellow with pink eyes. The older nymphs are extensively marked with black, especially on the wing pads, the tip of the abdomen and around the eyes (Plate IV, Figure 1). The ground colour of the head and thorax is greenish-yellow with the front part of the abdomen being yellowish-orange. The dorsal surface of the pale part of the abdomen has four pairs of horizontal bars which do not meet in the middle. The third pair of bars from the front is much narrower than the others; the fourth pair is the broadest. The dorsal surface of the thorax is marked by black spots and two pairs of vertical black bars. The body hairs are black and the antennae are yellowish green at the base and black at the tips.

The adult insect is 2–3 mm long with an orange-brown head and thorax. The abdomen is greenish-orange with a greyish-black band right across the tergites at the hind edge of the segments. The wings are hyaline and are held like a pitched roof over the insect's body. The legs have black tarsi but are otherwise coloured like the thorax. Both the adults and nymphs excrete a sugary liquid called honeydew which becomes coated with waxy secretions and forms sausage-shaped droplets of liquid on the plant. Black sooty moulds may develop in the honeydew and disfigure the foliage.

In Italy six to eight generations of the psyllid have been recorded on *Acacia longifolia* and *A. dealbata* during the growing season (Arzone and Vidano, 1985). Halperin (1986) recorded this pest in Israel on *Acacia ligulata* and noted that it produced several generations between spring and autumn and overwintered as adult insects. Some success in controlling the acacia sucker has been achieved in the Hawaiian Islands by introducing an Australian ladybird, *Harmonia conformis* (Boisd.) (Leeper & Beardsley, 1974). Research in California suggests that *Acizzia uncatoides* may not be able to tolerate high temperatures. Madubunyi & Koehler (1974) kept the insect at various constant temperatures between 15–45 °C. The optimal temperature range for development and reproduction was in the range 20–25 °C. At 30 °C, although

76.9% of the eggs hatched, none of the nymphs completed its development. In Britain *Acacia* and *Albizia* spp. are not fully hardy and they are generally grown as conservatory plants or in warm sheltered places, such as against a south-facing wall. Plants growing in protected situations could easily be exposed to temperatures in excess of 30 °C on sunny days and this may affect the sucker's survival.

ACKNOWLEDGEMENTS

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BOOK NOTICE

The Hemiptera. By W. R. Dolling, Oxford University Press/Natural History Museum Publications, 1991, 274 pages, £40, hardback.—After a general introduction to their ecology, behaviour and structure, the Heteroptera, Auchenorrhyncha and Sternorrhyncha are discussed family by family. The book is liberally dotted with delicate line figures by J. H. Martin and there are 8 colour plates. Keys enable determination of both adults and nymphs to family level. For more specific identification, the reader is referred to the books and articles listed in 17 pages of references. 1700 species of Hemiptera are recorded from Britain, their mainly herbivorous lifestyles making them a group of major importance, but still they are relegated to the less enthusiastically greeted end of the 'other orders'. Anyone reading this excellently produced book will find their interest and enthusiasm justifiably stimulated.

Plate IV.

1. A psyllid pest of acacia new to Britain. A. J. Halstead. 1992. *Br. J. Ent. Nat. Hist.* 5: 95–96. Nymph of *Acizzia uncatoides*.
2. Oviposition and hatching in the mantid *Tenodora sinensis*. B. O. C. Gardiner. 1992. *Br. J. Ent. Nat. Hist.* 5: 90. Nymphs hatching from the ootheca. Photo B. O. C. Gardiner.
3. Courtship display of a Central American tree cricket. R. A. Jones. 1992. *Br. J. Ent. Nat. Hist.* 5: 90–91. Tip of male abdomen showing the glistening inflated scent (?) organ. Photo R. A. Jones. Olympus OM1 with 50 mm f3.5 macro lens, 108 mm extension tubes and 10 diopetre supplementary lens. Taken at f22 using twin flashes, Kodachrome 64, La Pacifica, Costa Rica, 2.ix.1991.